



# Michigan Department of Transportation

## ORNBP Peer Exchange

### Transforming a State DOT Research Program

December 3 – 6, 2007

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#### Visiting team members

- Leni Oman, Washington State DOT (Chair)
- Mark Dunn, Iowa DOT
- Mark Morvant, Louisiana DOTD
- Dave Huft, South Dakota DOT
- Marci Kenney, FHWA – Washington, D.C.
- Blaine Leonard, Utah DOT
- John Mason, Pennsylvania State University

#### MDOT Strengths

- Willingness to examine their program in depth and make change.
- Proposed program is well thought out and provides a strong foundation.
- Emphasis on pursuing a broader range of research topics beyond just materials and construction.
- Core ORNBP staff has a good mix of skills and is committed to responding to senior management expectations.
- Reinvigorating the library will produce added value for the department.
- Access to six excellent universities, including two UTCs with available funds, to conduct research and other activities for the DOT.
- Support of the FHWA Division office for program changes.
- Strong interest in research among MDOT's technical staff outside of ORNBP.
- Consistent stream of federal dollars.
- Reputation for credible research that is regularly used by other states. Good e-mail distribution of research reports.
- Michigan has a very vibrant transportation research community that includes partnerships between MDOT, universities, consultants and industry.

#### Opportunities for MDOT

- Develop a culture of innovation, cooperation and accountability in transportation research.
- Capitalize on research resources through a single DOT vision in which ORNBP is a clearinghouse for research throughout the department.
  - Position ORNBP to market research successes and become MDOT's research champion.
  - Demonstrate the role of ORNBP in providing service and support for all agency research.
  - Understand work being done by the regions and the benefits they can provide to the process.
  - Effectively engage the bureaus, regions and TSCs in defining research opportunities.
- Address ORNBP staffing needs to provide adequate oversight, quality assurance and implementation tracking. Consider hiring in-house staff or outsourcing.
- Ensure MDOT research meets the strategic needs of the department.
- Maintain an emphasis on efficiency in fully defining the new program management structure, being cautious about creating too much process.
- Encourage ownership of the research program by senior management and recognition of the value of research.
- Include an introduction to research and library services in new employee orientation.

## Opportunities for MDOT

### **University Partnerships**

- Educate the universities about MDOT's critical research needs as they relate to the strategic goals of the department.
- Develop a cooperative agreement that meets the needs of both the DOT and the university.
- Partner with departments beyond civil engineering to conduct a wide range of multimodal research.
- Utilize universities as both educational/training and research partners.
- Leverage UTC funding and cost-sharing opportunities.
- To further define the role and mission of the Transportation Research Institute of Michigan, look to successes and challenges of similar consortiums in other states.

### **Needs Identification**

- Fund research projects based on strong proposals that address high priority needs of the department.
- Maintain funding flexibility in ORNBP for responding to research requests throughout the year.
- Communicate broadly and often about MDOT research activities and how to participate, using state and national newsletters, listservs and Web sites.
- Pursue external funding and joint efforts with other states and federal agencies to leverage research dollars.

### **Project Management**

- Establish dedicated research managers (additional staff needed) to provide oversight, quality assurance and implementation tracking.
- Develop a project tracking database of all research proposed, funded, in progress and completed.
- Include regional DOT staff and TSCs on project oversight committees.
- Enlist help in managing the timely submission of invoices and deliverables and in editing the final reports. Consider hiring staff or outsourcing work to the Centers of Excellence.
- Look for efficiencies in contracting to quickly bring in qualified principal investigators. Better coordinate research award cycle with the academic calendar.
- Consider policies that encourage on-time completion of projects.

### **Performance Measures and Reporting**

- Develop performance measures that work for the business needs of the department. Look to other states, NCHRP's Performance Measures Toolkit and input from department staff and other stakeholders.
- Highlight research success stories for senior management and the public to demonstrate the value of research, raise the status of research in the department and increase participation and support.